



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,421	01/20/2004	Chikuni Kawakami	0879-0425P	8089
2292 7590 12/26/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER AURORA, REENA				
ART UNIT 2862		PAPER NUMBER		
NOTIFICATION DATE 12/26/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/759,421

Applicant(s)

KAWAKAMI, CHIKUNI

Examiner

Reena Aurora

Art Unit

2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 3, 5, 6, 10, 21 - 23, 25 - 28 and 30 - 38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 3, 5, 6, 10, 21 - 23, 25 - 28 and 30 - 38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This communication is in response to RCE received on 11/18/08.

Claims 1 – 3, 5, 6, 10, 21 – 23, 25 – 28 and 30 – 38 are presented for examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 3, 5, 6, 10, 21 – 23, 25 – 28 and 30 – 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukasawa et al. ("Fukasawa", US 6,638,780) in view of Chen (US 4,914,731) in view of Sommers (US 2003/0180037) and Wu (US6,481,130).

Regarding claim 1 – 3, 5, 6, 10, 21 – 23, 25 – 28 and 30 – 38, Fukasawa discloses primarily in Figs. 2 and 5 a lighting apparatus comprising an LED light source with a plurality of LED's mounted on a circuit board (24), and a single reflector (21) having a substantially rectangular shape in plan perpendicular to a light emitting direction of the LED light source, the reflector being formed independently from the

reflecting surface and provided above the reflecting surface so as to surround the LED light source (12) and said reflector having an opened rear thereof closed by the circuit board when mounted on the circuit board. Fukasawa does not expressly disclose a reflecting surface formed on the circuit board. Chen discloses a lighting apparatus comprising a reflecting surface (53) formed on a circuit board that is to be surrounded by a reflector. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a reflecting surface on the circuit board of Fukasawa as taught by Chen since the reflecting surface can increase the efficiency of the lighting apparatus by reflecting more light ahead. The combination of Fukasawa and Chen does not expressly teach the incorporation of the lighting apparatus into a camera as a flash device. It is conventional, as taught by Sommers, to use LEDs in cameras as flash devices. It would have therefore been obvious to one of ordinary skill in the art at the time the invention was made to use the lighting apparatus of the combination of Fukasawa and Chen in a camera since LEDs can operate more efficiently than conventional flash tubes. While Chen discloses the use of a round reflector surrounding an LED (as opposed to the claim language reciting a rectangular reflector), it is noted that the rectangular shaped reflector is conventionally used in the art, as taught by Fukasawa. The addition of the reflecting surface on the circuit board can apply to any shape reflector that is placed above it, whether it is circular or rectangular, or any other shape. The shape of the reflector in this case therefore is not a patentably distinct feature. Fukasawa, Chen and Sommers do not explicitly disclose a claw extending from the single reflector for mounting the single reflector on the circuit board, the claw having

a horizontal arm, a first end of which being attached directly to an external side surface of the single reflector, and a vertical arm that extends from a second end, opposite to the first end, of the horizontal arm and penetrating through the circuit board, the vertical portion having an engagement portion that engages with a rear surface of the circuit board. Wu disclose the claw has a horizontal section (see Fig. 1B of Wu), and a vertical section extending from one end of the horizontal section and provided with a claw (at 35), wherein the vertical section extends inside the mounting hole (of 22) such that the claw engages with a rear surface of the circuit board (see Fig. 1B of Wu). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide claws of any particular structure based on the need to engage a hole in the circuit board in the invention of Fukasawa, Chen and Sommers as taught by Wu in order to provide a secure connection and proper alignment between the two components.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reena Aurora whose telephone number is 571-272-2263. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, P. Assouad can be reached on 571-272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Reena Aurora
/Reena Aurora/
Primary Examiner, Art Unit 2862